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Cinematographer
THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

DECEMBER
1947

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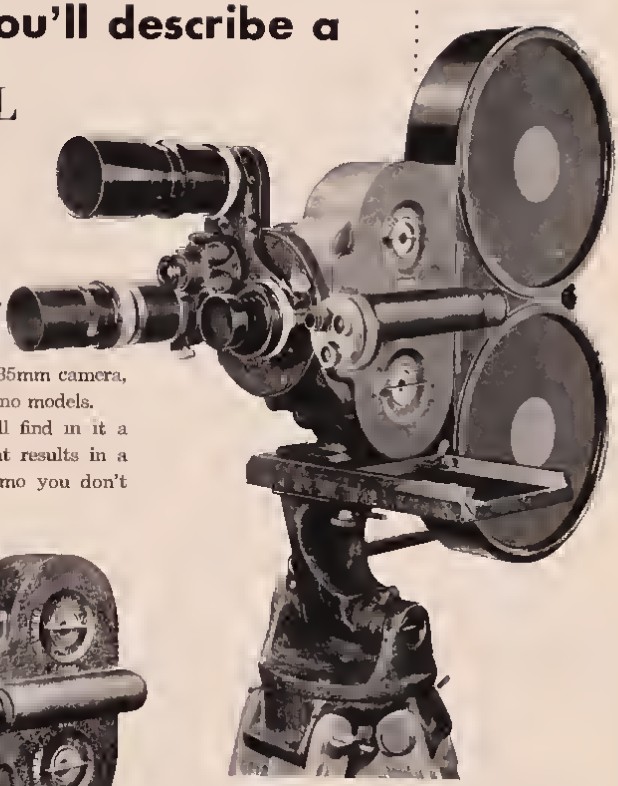

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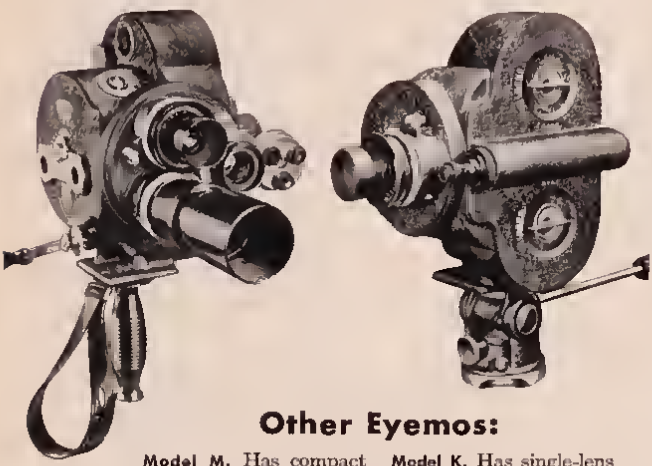

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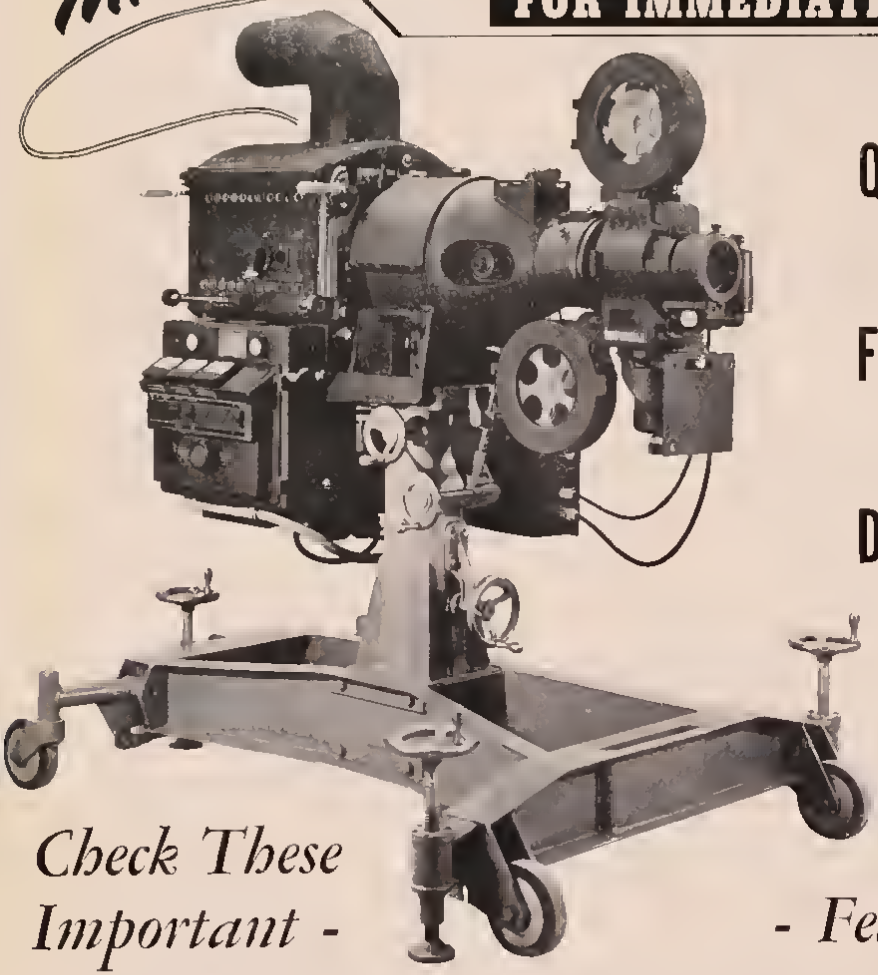

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AMERICAN CINEMATOGRAPHER

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 28 DECEMBER, 1947 NO. 12

CONTENTS

ON THE FONT COVER—Betty Hutton rehearses the Madame Butterfly sequence for the Paramount production of Dream Girl Director of Photography Daniel Fapp, A S C is in foreground beside the camera checking the action prior to shooting Still by Jack Koffman

Published monthly by A S C Agency Inc
Editorial and business offices
1782 North Orange Drive
Hollywood (Los Angeles, 28), California
Telephone GRenite 2135

Established 1920 Advertising rates on application Subscriptions United States and Pan American Union $2 50 per year Canada $2 75 per year, Foreign $3 50 Single copies 25c back numbers 30c foreign single copies 35c back numbers 40c

Entered as second-class matter Nov 18 1937, at the postoffice at Los Angeles California under the act of March 3 1879

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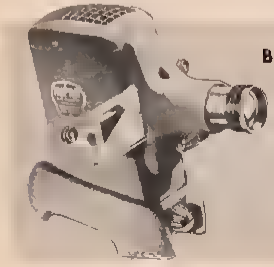

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AMPRO

PRECISION CINÉ EQUIPMENT

Special Photographic Effects' Magic

by GRADY JOHNSON

GORDON JENNINGS, ASC, a big, genial man with a photographic eye for detail and a talent for deceiving motion picture audiences, sat in a Hollywood studio projection room recently, grumbling, Come on with the bubbles

Jennings, head of Paramount studio Special Photographic Effects Department, was having run off for himself and staff the 20-year-old silent epic, "Wings," and the bubbles besought were those which floated up around Clara Bow from champagne glasses in the hands of Buddy Rogers and Roscoe Karns He wanted to study this titillating ebullition, still suspected of comic qualities, to revive it for a sequence in the latest Crosby Hope-Lamour picture, "Road to Rio.' These exaggerated soap suds would be thythmically blown through a trumpet which Hope plays They would be very special bubbles —plump and durable, and rheir skins corseted with sugar and glycerine

To the casual observer this looked like mighty easy work and nor comparible with Jenning's reputation as one of the trickiest ttick-shot artists in the trade—a man who once built and destroyed Rome in a fortnight, launched and sank entire navies in a matter of days, erupted volcanoes, devastated cities and turned to charred waste large portions of the earth But while his underlings read the old silent subtitles aloud, Jennings said later that he had been entertaining himself with other problems. Among them were

How to merge the Fall River in Wyoming with the Snake River in Idaho,

How to "pan" in one continuous shot up the side of a New York skyscraper and into a window, by daylight, pick up Ray Milland in a bit of business for The Big Clock," follow Milland into some giant clock works and back down to the out side of the building where—and this is the tough part—it had grown dark, and

How to make a "dream —complete with ethereal seatchlights and stars for "Variety Girl,' which, far from incidentally, also is congested with 36 thespian stars.

Ordinarily a man who jealously guards secrets learned from 28 years in the business, Jennings was induced to talk about his work because of two recent, important developments One is a gadget he has wired up the better to fool you with The other is a wanton exposition in "Variety Girl' of how you are fooled

The latter involves the so-called "trans parencies"—a method of photographing backgtounds which later are projected, from the rear, onto huge transparent screens so that actors, performing in front of them on Hollywood sound stages, can appear to be climbing the Alps or driving automobiles at breakneck speed down

(Continued on Page 459)

Gordon Jennings, A S C., head of Special Photographic Effects Department, Paramount Studios beside a special effects camera used in his department

"BLACK NARCISSUS"

COLOR MASTERPIECE

☆ ☆

by HERB A. LIGHTMAN

CURRENTLY appearing on our screens is a motion picture of such breath-taking visual splendor that it may well be considered a perfect amalgam of art direction, costume design, and Technicolor photography. The film is Black Narcissus, a British production presented under the banner of J. Arthur Rank by *The Archers* (Michael Powell and Emeric Pressburger) and released in the United States by Universal-International.

The team of Powell and Pressburger is that which brought to the screen such finely wrought film-fare as "The Invaders," "Colonel Blimp," "I Know Where I'm Going," and "Stairway to Heaven." In "Black Narcissus," they have surpassed even their own lofty standards of technical excellence by producing a visual masterpiece that definitely ranks with the best of cinematic art.

The story of "Black Narcissus" concerns a group of five Anglican sisters who are sent to take over an exotic palace high up in the Himalayan Mountains and transform its rooms (which once housed the harem of the local Indian ruler) into a convent.

The film traces the psychological effect on the nuns of the barbaric country, the winds that moan ceaselessly through the mountains, and the bitter cynicism of a worldly English agent. The combined effect of these negative elements causes the sisters to become neurotic, and they finally retire in defeat to their base in Calcutta after one of their number has renounced her vows, attempted to enamor the English agent, and plunged over the cliffside to her death.

The film tells a strangely moving story of human emotion bursting forth from cloistered restraints under the compelling influences of Nature and Oriental splendor. Through it run deep psychological undercurrents that sharply point out the effect of environment upon human behavior. It is these subtleties of emotion which the visual presentation of the film succeeds so brilliantly in revealing.

Triumph for the Camera

Black Narcissus is definitely a *cameraman's picture*. Its story, though absorbing and often dramatic, takes second place to what has been described as the most beautiful Technicolor photography ever to appear on the screen. This extravagant compliment is borne out by the breath-taking scenic shots, the magnificent mood-lighting, and the inspired camera angles which characterize the photographic treatment of the story.

Cinematographer Jack Cardiff, A.S.C., has broken a good many of the rules in trying for effects which the experts insist cannot be achieved in Technicolor. His use of low-key lighting is especially good, and somewhat unique in that he uses little or no *fill* lighting in such sequences. His

The Palace of Mopu, sometimes known as "The House of Women," is a former habitation of an Indian potentate's harem which a group of nuns transform into a convent as part of the action of "Black Narcissus," spectacular J. Arthur Rank British production.

(Left) A production crew on the back-lot of the Pinewood Studios in England prepares to photograph a scene from "Black Narcissus." The set is the courtyard of the Palace of Mopu. In the background can be seen the well-tended shrubbery of the English countryside neatly concealed in the film by beautifully colored backdrops of Himalayan scenery. Simple forceful compositions and dramatic framing contribute to the outstanding photography of the picture.

angles are fresh and original—perfectly suited to the action of the scene.

Unusually well lighted and composed are scenes within the convent itself. In these sequences the camera succeeds in capturing a reminiscence of the former splendor of the 'House of Women' while still allowing the austere influence of the nuns to predominate. Extreme close-ups in the more dramatic sequences add greatly to the impact of the situations.

One of the most outstanding photographic features of Black Narcissus is the camera treatment of the majestic Himalayan scenery. These scenes become almost incredible when one considers that they were all filmed *in England* by means of *backdrops*. Even veteran film technicians, long accustomed to the wizardry of trick photography and special effects are amazed at the authenticity of these man-made backgrounds. The effect is so perfect that one would be willing to swear that the bulky Technicolor cameras had been laboriously hauled on donkey back up the steep slopes of the Himalayas (or at least the Swiss Alps), instead of being casually set up on the back lot of the Pinewood Studios ourside London.

The elaborate backdrops used were skillfully painted in glowing colors and set up against the sky to hide the well-tended shrubbery of the English countryside. The enormous sheers of painted canvas were set at an angle of 30 degrees from the vertical in order to catch the sunlight for a longer period of time and thus prolong the hours when shooting was possible each day.

In order to simulate the towering terrain of the Himalayas, technicians constructed on the Pinewood back-lot a man-made "mountain on stilts" complete with terraces and winding pathways that live pack-mules would climb up laden with goods. Spread out at the foot of this peak was the courtyard of the ancient Palace of Mopu, main locale of the story. Visitors behind the scenes" of this set were surprised to see that they could look right through the base of the mountain, since the whole affair was constructed over a hollow metal scaffolding.

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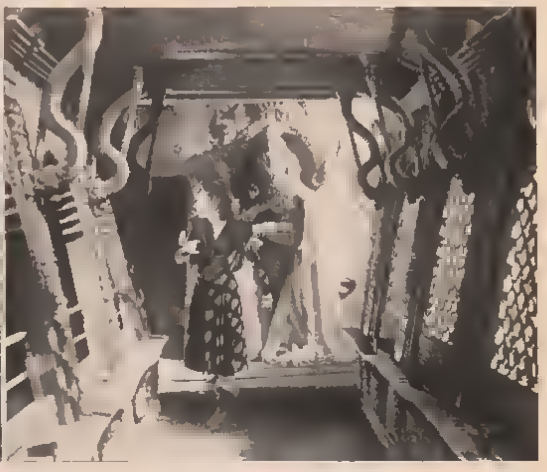


Scenes from the Universal-International release of "Black Narcissus," an English production by the Archers. (Left) The characters in the scene stand on a man-made "mountain on stilts" constructed over a huge scaffolding of tubular steel. The mountains in the background are, in reality, painted on a backdrop. The film, notable for its excellent Technicolor photography of Himalayan scenery, was filmed entirely in England. (Left) One of the many striking interiors in the Palace of Mopu, main locale of the story. Art direction by Alfred Junge is superbly in key with the story.

40 YEARS FOR BELL & HOWELL

DURING the ten years that followed the first public showing of motion pictures in 1896, the young industry was in a turbulent mess. It was, in fact, trying very hard to become an industry. The search for methods, processes and machinery with which to stabilize a new endeavor, was completely unorganized. Equipment and processes were devised in great secrecy. Patents were accumulated jealously guarded, fought for, and infringed upon, with the freedom and abandon of the pioneer.

A dozen or so different film widths clamored for recognition. Each inventor had his own favorite film size, and the film made in the camera developed by one technician could not be shown in the projector developed by another. One film was 2¾ inches wide, and the perforations were punched while the film was in the camera—as the pictures were made! Another had three rows of pictures on the same film, which was run back and forth in the projector.

It was in this state of chaos and technical turmoil that the young Bell & Howell Company found itself when, in 1907, the organization was born. And three early Bell & Howell units not only formed the foundation on which the company was built, but actually eased the motion picture furor of the day into a stabilized standardized industry.

A satisfactory projector was first in the minds of the young Bell & Howell engineers—a projector that would not let the pictures flicker and jump all over the screen, and that would not show pictures cut in half.

However, they soon discovered that no matter how accurately a projector might be designed and built, its pictures would not be steady and flicker-free unless the film itself were handled by precision machinery from the very beginning. Accordingly, the first B&H Model standard 35 mm camera appeared in 1907, to be followed a year later by the first small continuous 35mm printer.

It was this Bell & Howell printer that finally standardized the industry on a film 35mm wide. The mechanics of that printer are still amazing. As is commonly known, the negative film, which has gone through the processing solutions and has already shrunk to its final dimensions, is printed on raw positive film which has yet to be processed and which will shrink when it is developed. This shrinkage-after-printing raised cain with picture steadiness. Stop printing—frame by frame—was being used to eliminate the jump

J. H. McNABB, President
Bell & Howell Company

but it was a slow and laborious process and was holding the industry back.

Bell & Howell engineers designed a continuous printer in which the two films—negative and positive, one on the other—passed over the arc of a circle at the printing point, negative on the inside, positive on the outside. This mechanism was so precisely designed that the radius of the inner circle (formed by the negative) was shorter than the radius of the outer circle (formed by the positive) by an amount which would exactly compensate for the subsequent shrinkage of the positive film. In other words, the outer positive film was longer by the exact amount that it would shrink after processing!

This printer caused a revolution in the laboratories of the period, and it proved so accurate that when sound literally entered the picture 20 years later, the B&H continuous printing principle appeared to have been developed expressly for the additional accuracy required. A sound track is, in effect, a long, narrow, continuous picture, and the B&H printer of 20 years before was so precisely designed that no basic changes were necessary.

Photographers and exhibitors of that day soon learned that pictures processed on a B&H printer were steady, did not jump. And the printer was designed for 35mm film. They learned also that pictures made in the B&H camera did not jump, that the film registration—that is, every frame exposed in exactly the right area on the film—was accurate beyond belief. And the camera was designed for 35 mm film.

The gradual but inexorable shift to 35 mm film began, for only in that size could Bell & Howell equipment be obtained. Only in that size could the most satisfactory pictures be made and exhibited. Thus it was that Bell & Howell, with superior equipment in a period of confusion and uncertainty, brought about the standardization of 35 mm film. When the company was founded, you couldn't show in Milwaukee a film you could show in Chicago. Today, 35 mm is the standard professional film throughout the world.

This printer was followed by a film perforator which, again, was a mechanical masterpiece. Film perforations must be evenly spaced to a microscopic degree, to prevent picture jump. The main principle upon which the B&H perforator is based is the location of new holes by the very holes that have just been punched. The film is guided into the perforation channel, and a primary set of four pairs of holes is made. From then on, four sets of pilot pins engage previously made perforations to so position the film in relation to the punches, that the next set of four perforations will be accurately punched in the film.

As previously stated, the first B&H 35 mm camera appeared in 1907. It was followed in 1909 by the first all-metal motion picture camera ever made. Here came into prominence the famous "Unit I" intermittent movement, never excelled to this day for accuracy in registration. In all other cameras of the day, the film ran in a vertical line through the gate, with the teeth moving in and out of the film. In the B&H camera, the teeth moved up and down, and the film was moved backward and forward. Moved to the rear, the film was impaled on the teeth which pulled it down. At the bottom of the movement, the film was moved forward off the teeth, up against the aperture plate. It was engaged on a pair of pilot pins which held it in place during exposure. The only time any pressure was exerted on the film was while it was at rest. The rest of the time it was free from all drag. This principle of 'pilot pin registration' assured absolute accuracy and even today, the Bell & Howell Unit I movement is the type preferred in Hollywood when extreme accuracy is required. An example is the photography of 'rear projection'—movies of movies. If the scenic or atmospheric background of a set, which actually is a movie projected

from the rear on a translucent screen, were to waver even slightly, the fake would be obvious and the principle could not be used All such backgrounds have been made with the Unit I—none other has been equally accurate

Present standard Bell & Howell studio cameras are substantially the same in basic design as that camera of 1909 While modifications and improvements have been added continually, the fundamental design was so carefully and accurately engineered that no basic change has ever been found necessary As a matter of fact, Walt Disney filmed a great portion of "Snow White and the Seven Dwarfs" on B&H Standard Camera No 50

For 16 years B&H made only professional equipment, and it was in 1923 that the first Filmo camera and projector appeared So popular were they that in three months Bell & Howell was back-ordered for a year's production of the famous old 70 A, and not until 1930 did the company catch up with the demand

Just 15 years ago—in 1932—came the first Filmosound, and 11 years ago the first Filmo double run 8 mm camera appeared Dozens of precision-built 8 mm, 16 mm, and 35 mm units have been announced through the years As the demands of the professional industry, visual education, and the home movie hobby have been made, Bell & Howell has met, and even anticipated, these needs

A brief review of company expansion will give an excellent idea of Bell & Howell growth and solidity In 1907 the company occupied space on the third floor of a building on Illinois Street, now Austin Avenue—space 30 feet by 60 feet, including offices! In 1914, a small building on Larchmont Avenue was built It was here, under President J H McNabb that the first spring-driven 16 mm. camera was given to the world and that real expansion, in both outlook and facilities, began. The old 70-A clicked—the straw was in the wind—and Mr McNabb saw that a new hobby, a new educational force, was about to become a part of American life In fact, a new business, lusty and flourishing, was emerging from the old A new building went upon Larchmont Avenue in 1926, more than doubling the space of the first building Then, in 1929, a far-sighted management built the B&H Rockwell Engineering Laboratory and staffed it with the world's most highly skilled engineers—optical mechanical, electrical

Again the quarters were outgrown, and an addition to Rockwell was built

Expansion continued, and as the dogs of war strained at their leashes in 1941 B&H was bulging out of six different buildings

The magnificent Lincolnwood Laboratories were built in 1942, followed by an addition in 1946 Here is the ultimate in modern manufacturing plant design and construction Here, during the war men and women worked the clock around building the precision optical and electronic equipment that scientific warfare demands—lenses, gun sights, top-secret radar devices, the see-in-the-dark sniperscope, the gun cameras that got what they saw the pilot get, the type that made the famous Navy documentary, "Fighting Lady", Filmosounds, to train men for war and to give them brief respite from war, bomb-spotting cameras, combat cameras, and other precision equipment

Here, now, Bell & Howell is building Filmosounds, cameras, projectors, and other equipment—building them according to precision standards that are equalled only by manufacturers of instruments and gauges, and by watchmakers

(At top) Early plant of Bell & Howell on Larchmont Avenue, Chicago. (Center) The new Lincolnwood Laboratories, latest of the three plants in the Chicago area. (Bottom) Company's Hollywood Laboratories which service the motion picture studios

Television Recording Camera Developed By Eastman Kodak

Eastman Kodak Company announces a 16 mm motion picture camera for recording television programs on film

The new camera, first of its kind, produces movies directly from the face of the monitoring picture tube in a television broadcasting station

The camera takes pictures at the rate of 24 frames a second. Sound is recorded separately by standard methods. Kodak put the camera on display at the 62nd semi-annual convention of the Society of Motion Picture Engineers in the Hotel Pennsylvania, New York City, last month

The company said the camera was developed in cooperation with the National Broadcasting Company studio at station WBNT and the Allen B. DuMont studio at station WABD

Three Kodak engineers, Joseph L. Boon, William Feldman and Joseph Stoiber, described the technical details of the camera in a paper presented by Feldman at an SMPE meeting Thursday, October 23

Main uses of the new camera in television broadcasting will be:

1. To enable the recorded programs to be reused by the sponsor for institutional public relations and advertising
2. To record transmitted shows for billing requirements
3. To record all 'live' programs that go out on the air. This use, for example, will be important for legal purposes

Another possible major use, still in the experimental stage, is in a television film network. The new camera photographs the 'monitor tube" in the broadcasting studio. This tube shows everything that is transmitted and is used by the station to keep constant supervision of the program.

If a film network proves feasible, the camera would photograph television programs by recording them as shown on the monitor tube. These film records of "live" programs then could be rebroadcast by stations in other cities. This would supplement the present limited and expensive television networks using coaxial cables and radio relays.

Directly televised programs are now limited in range to 'line of sight' transmissions, or about 25-50 miles.

Basic camera design features of the camera include:

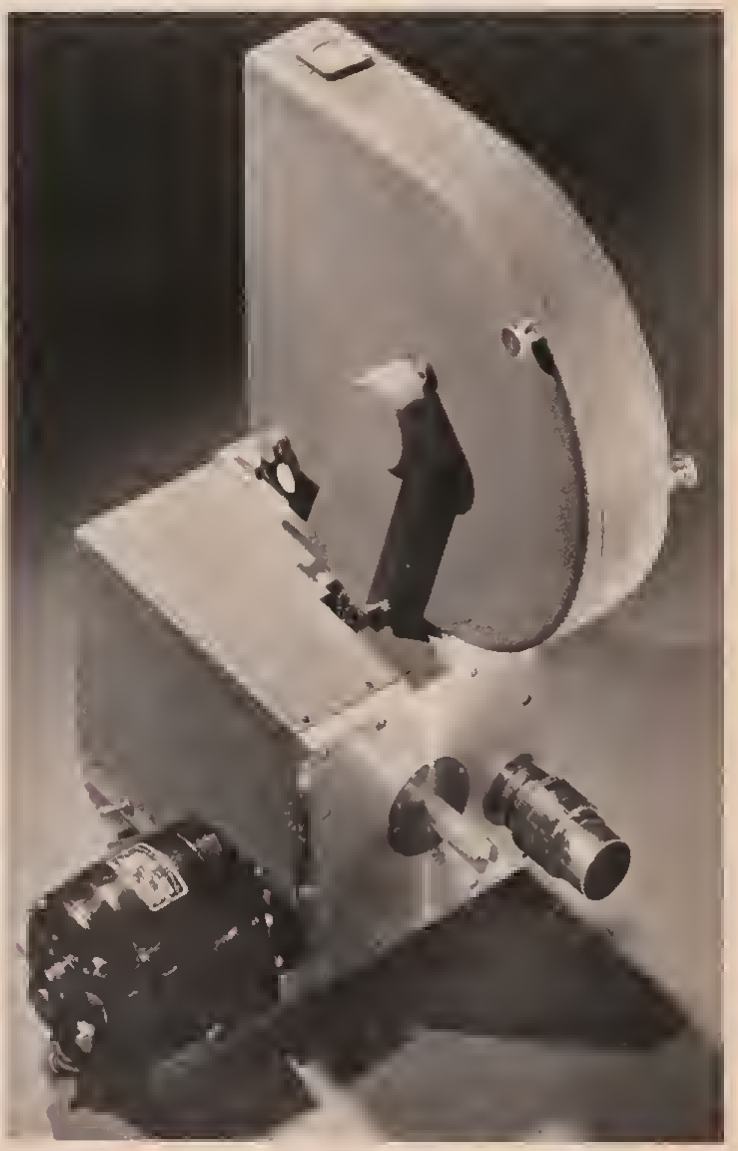
A 1,200-foot film magazine that permits continuous recording of a half hour program.

Separate, synchronous motor drives for the shutter and film moving mechanisms.

A coated (Lumenized) f/1.6 lens of 2 inch focal length (Kodak Ektar).

An 8-tooth sprocket pulldown actuated by an accelerated geneva star, a 72-degree shutter, a 'bloop' light to provide registration with the sound film recorder, a film loop-loss indicator and appropriate footage indicators.

The double chamber magazine is a self contained unit housing both the unexposed and the exposed film. It may be readily removed from the camera. Light-locks allow changing of loaded magazines in a lighted room.



PARIS LETTER

by W. IRVIN BRENNAN

(The author recently returned from a four months trip to England, Denmark, Norway Sweden France and other European countries, where he made a survey of business conditions and possible future markets for products of Barduell &McAlister Inc, Hollywood designers and manufacturers of photographic lighting equipment and accessories This article describes the present lack of modern production apparatus and equipment in Paris studios, and necessity of getting along with antiquated equipment.)

"ALLO, ALLO! Ah, oui, madamoiselle Je veux Louvre 47-86, s il vous plait"

There is then an interminable waiting period, and finally a faint whisper comes over the wire Someone has answered — maybe

'Allo, allo! Is this Louvre 47-86? I would like to speak to The line goes dead You try again, and again, always with the same result To break the monotony, the hotel operator occasionally cuts in with sympathetic noises She is desolated monsieur, but there is not enough current to reach the other side of Paris, or someone has cut the line, or the party has laid down the receiver and gone to luncheon Finally you say 'The hell with it and take a taxi

An American, trying to do business in Paris, finds that a good many things seem to be done the hard way There even seems to be some doubt about the telephone being here to stay Your French friends blandly advise you never to struggle with it They always take a taxi, they say

But Bardwell & McAlister wanted information on the use of photographic lighting equipment in the French motion picture industry, so that they might determine the extent of the market, if any for their Baby Keg-Lites, Dinky Inkies and other products I was elected to get the information or try to This is what I found out

The French Government realizes that the motion picture is as essential to modern living as soap and currently, France is practically soapless It has therefore set up a governmental department (known as the Commission Supériere Technique) which is to promote the interests of the industry, and give it every opportunity to develop in the postwar picture One of the first things that they have to do is to find out what to use for money American money, of course since they have very little means at present for manufacturing their own equipment, even if they had the know how to duplicate the fine American products which are now essential to enter the field of color work

I talked with one of the members of the Commission, who was also an executive of the industry He stated that although there had been no color films made in France, they were working on a process which they were sure would fill their needs

I then asked what they were going to do to light their sets for color shooting The reply was that they had no lights for that purpose, and no dollars to purchase any, but, he felt sure that the Government could be induced to release enough dollars to purchase ONE of each type which Bardwell & McAlister made

He must have noticed my astonishment when he said, one of each, because he quickly added, Of course you understand that within a year, we will be making these lights ourselves, in French factories

In answered, 'I m afraid you will have to pass up making these particular lights, because they are protected by patents"

He smiled and waved that one aside with the remark that they would design around them . . . naturellement

Through the Gaumont offices, I finally obtained permission to visit the St Maurice Studios at the village of St Jean le Pont, outside Paris Here, the staff was most helpful in showing me what they were doing, and what equipment they had. Assistant Director Jean Dieutegard, took special pains to get the information I requested

They were shooting a picture entitled. La Derniere Vacance M Prevost directing, and the wonder of it all was that they are able to make such good pictures with such limited equipment They showed me a collection of antiquated arcs, which included those made by Barbier, Bresnard and Turenne, as well as some by Breguet Although this was a representative studio, the whole layout was on a very small scale, and there was practically no activity Inquiry revealed that

(Continued on Page 455)

Director Prevost at the St Maurice Studios France (second from the right) gives directions to the cast during the filming of "La Derniere Vacance"

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Loyal Griggs
Burnett Guffey
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Edwin Hammeraas
Ralph Hammeras
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Harold Lipstein
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Fred Mandl
J Peverell Marley
Charles A Marshall
Harold J Marzorati
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Jack Smith
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Mack Stengler
Clifford Stine
Archie J Stout
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Ted Tetzlaff
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Leo Tover
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The Cinema Workshop

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18. Titling Your Films

By CHARLES LORING

AFTER a motion picture has been finally edited, it should be titled—because titles that are well designed and photographed will add a finishing touch and give the film the polish it should have before being shown in any form to an audience.

Many producers (including some of the larger professional studios) frequently spend a great deal of money on a production, only to economize later by adding to it a set of makeshift or inappropriate titles. The importance of good titling should not be underestimated, because, after all, titles are the first and last images which flash onto the screen. The main title is the first impression an audience gets—and the producer should strive to make that impression a good one, since it is likely to remain in the audience's mind and influence its reaction to the remainder of the film.

A shabby set of titles is the sure sign of the amateur, whereas a set of well-presented titles will do much to lend a professional touch to the film. It is not necessary to have involved and costly equipment in order to produce attractive titles. Precision and ingenuity are the real requisites. A titler is desirable, but not absolutely necessary—and a good steady camera stand or tripod is a definite asset.

The Function of Titles

The function of *main titles* is, of course, to introduce and conclude the film. A motion picture without main titles is an unfinished product and will appear so on the screen. But main titles should do something more than provide a beginning and ending for the screen presentation—they should definitely add to the total effect of the film.

For example, a title that is in key with the subject matter of the story will help set the desired mood, so that the audience will be well-steeped in the atmosphere of the theme by the time the action begins. In so doing, it becomes an integral part of the presentation, and not just something that is tacked onto it.

Sub-titles, especially in a sound film, should be held to a minimum, since they tend to intrude into the subject matter and often detract more than they add. A film that has been skillfully written, directed and photographed will usually tell a fairly complete story without requiring printed explanations, but it is admitted that there are times when sub-titles are desirable and even necessary.

When sub-titles are used, they should be kept short, simple and appropriate to the subject matter. Also, they should tie in as closely as possible with the theme of the story and the general style of the photography.

The primary function of the sub-title is to provide information not conveyed by the visual action or the sound track. Thus, when establishing a new locale it is often convenient to show a place-name superimposed on a characteristic and easily recognized scene of the place. If the period of the film is historical, a short printed background to the action usually helps to clarify matters.

A second function of sub-titles is to bridge gaps in time, place or action, so that the audience will not 'get lost' during a transition between sequences. Actually, while titles are the easiest device to use in gaining this effect, it is much better from the cinematic standpoint if the idea can be conveyed by transitional scenes within the action itself.

Conventional Titles

One of the most important requirements of a really good set of titles is that they blend in smoothly with the subject matter of the story. Any sort of title is an intrusion into the action, since, for the moment, the audience must forget the story and read the words that flash onto the screen—but the more elements the title format has in common with the story itself, the less jolting will be the intrusion.

For example, if you have filmed a rustic story of a mountain camping trip, it would be quite appropriate to have your titles lettered on one of those typical wayside signboards with the jagged edges. If yours is a story with a seaside locale, what could be more fitting than titles spelled out with driftwood or brightly colored shells arranged on the sand? This sort of titling gets your audience into the mood of the story right from the start and keeps them there. Also, titles of this sort are easily arranged, because the necessary materials are usually right at hand in the locale.

An old standby for titling a film of a vacation trip is the device of using signs and markers along the way. Actually, this is the best sort of titling for such a subject, because it keeps your audience right in the atmosphere of the story at all times. An alternate titling plan for such films is to intercut your live action with shots of a hand tracing the route on the map.

Where your story calls for a number of sub-titles to explain a progressive plot, it is sometimes a good idea to use a diary as your means of exposition. Such titles should be filmed in extreme close up with black ink on white paper. Needless to say, they should be written in very legible script.

The simplest and most common type of title is the *hand-lettered* variety which involves poster board, show-card paint and a talent for lettering. The style of the letters should tie in with the atmosphere of the story. A streamlined modern style, for example, would be fine for a sophisticated modern comedy, an ornate type of letter would go well with a story of the Victorian period, whereas, heavy Gothic script would appropriately complement a film set in the Medieval period.

The lettering can be painted either on a smooth or textured paper, with or without a border around it. For a comedy theme it is sometimes effective to illustrate the title background with clever little cartoons—although these should not be so intricate and startling that they distract the audience's attention from the words.

An alternate to the *hand-lettered* title is the *printed* title which, when well-executed, has a very professional appearance. Type faces appropriate to the story should be selected and a layout made that will present the credits in the most effective manner. Such type set titles may also be printed on thin sheets of celluloid which can then be superimposed on a still photograph, a painting, a piece of figured paper, or a rough-textured fabric. Titles painted on glass can be used in the same manner.

One of the most attractive kinds of titles is that in which the letters are painted on a sheet of glass which is then photographed against a running waterfall, a scenic view, or any subject for which it is not necessary to move the camera. This method requires a certain amount of preparation and precision in filming, but the striking effect is well worth the effort involved.

For best results, the title is painted (in opaque poster-color) on the reverse side of a plate of glass measuring about 3 x 4 feet. The glass is then set up on a supporting wooden framework in front of the desired background scene. Such titles

(Continued on Page 448)

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AMONG THE MOVIE CLUBS

New York Metropolitan

Extensive film program was presented at the October 16th meeting of Metropolitan Motion Picture Club of New York City, held at the Pennsylvania hotel Subjects screened included The Midnight Guest, by George Valentine, "Magic Mush, by Eric Unmack of San Francisco, My Day Off, by Owen Campbell of Roanoke, 'Dummy Walks Out, by the late Walter Mills, "Terry's Adventures," by Terry Manos, and The Will and the Way," by Chester Glassley of Dallas

Annual club contest closed on November 1st, with first three prizes being $75 $50, and $25, respectively

Los Angeles Eight

Paul W Cramer was elected president of Los Angeles Eight MM Club for the coming year, at meeting held at Bell & Howell auditorium on November 11th Other officers include L F Larsen, vice-president, Mrs Florence Beazell, secretary, and Willis Fackler, treasurer Film program included group of past-president and member films Club's annual banquet and contest will be held on December 6th at Scully's

Minneapolis Octo Cine

Minneapolis Octo Cine Guild held joint meeting with the Suburban Cine Club on October 28th at Hasty-Tasty Tea Room, with dinner preceding the session 'The Family Album,' General Electric film on lighting was screened while Mike Fleming gave a demonstration and talk on wire recording for home movies

Club's initial class on titling was held at Bryant Junior High School on evening of October 21st, and members were enabled to make their own titles with selected backgrounds

Seattle Amateur

Members of the Tacoma Movie Club were guests of Seattle Amateur Movie Club at meeting of November 11th, held at Epiphany Hall In addition to runoff and judging of members' vacation films for contest, the ACL subject in 8 mm color, Pinnochio's Jack-O Lantern was shown

Milwaukee Amateur

Entries of 8 mm subjects in the annual contest of Amateur Movie Society of Milwaukee were exhibited at the November 12th meeting, with the 16 mm entries projected for members at the meeting of November 26th

Los Angeles Cinema

James H. Mitchell was elected president of the Los Angeles Cinema Club for 1948 at meeting of the organization held on November 3rd at the Ebell Club Herbert F. Sturdy was elected vice-president, Charles J Ross, secretary, and Jack Shandler, treasurer Officers will be formally installed at December 1st dinner meeting to be held at the Breakfast Club

Film program for the November 3rd meeting comprised Fisherman's Gold," by Jack Helstowski, a novelty reel taken by Amateur Motion Picture Section of University of Southern California of the band and glee club, and a program of 35 mm color slides of Yosemite presented by Judge William J Palmer

San Francisco Cinema

Nominating committee to select slate of officers for the coming year was elected at the November 18th meeting of Cinema Club of San Francisco, held at the Women's City Club Film program for the evening included South of the Border,' by J W Holmes, Canada's Tackle-busters, loaned by Canadian Pacific Railway, Fiesta at Fishermen's Wharf by G M Tibet, The Airline Passenger Agent, loaned by United Air Lines, Scenery Unsurpassed, 100 kodachrome slides by Louis Franovich and Autumn Colors also by Franovich

San Francisco Westwood

B Pasqualetti of San Francisco Junior College featured the October 31st meeting of Westwood Movie Club of San Francisco with an informative talk on "Giving Amateur Movies a Professional Touch" Film program included movies of the summer club picnic by Ed Brennan, and "Canadian Rockies," by Dr J Allyn Thatcher At the same meeting, members voted on several proposed changes to the club constitution Film entries for the annual contest closed on November 9th, and winners will be announced at an early meeting

ANFA Year Book Ready

Allied Non-Theatrical Film Association annual Year Book and Audio Visual Directory for 1947-48 will be issued this month Publication, in addition to listing names and addresses of 16 mm film libraries, producers, and sponsors, contains data of permanent reference value to persons associated with the narrow-gauge film field

Brooklyn Amateur

Tape vs disc recording for home movies featured the November 19th meeting of Brooklyn Amateur Cine Club, held at the Neighborhood club auditorium Francis Sinclaire presented facts and information on disc recording, while Irving Gittell expounded the advantages of tape method, with demonstrations Meeting was climaxed by a film program, with constructive criticism by the club's expert clinic committee.

At the November 5th meeting, Harry Groedel was guest of honor and screened "Glacier National Park, 'Canadian Rockies, and Spring Is Here" Also shown was Motion,' by Henry E Hird

Philadelphia Cinema

Annual fall picnic of Philadelphia Cinema Club was held on Sunday, October 26th, at Harper's Meadow, with members attending with picnic lunches and cameras for an eventful day

Film program for the November 11th meeting held at Franklin Institute, included "How Lenses Are Coated," courtesy of Acra Instrument Co, 'Amateuriana' and Hubby's Revenge,' by G A Del Valle, and 'Saddle Trips Around Mt Robson and Jasper Park, by S L Howell

Alhambra La Casa

Film program for the November 17th meeting of La Casa Movie Club of Alhambra, Calif, comprised Natchez—Pilgrimage of the Garden Clubs to Old Plantations—New Orleans, by Hugh S Wallace, Second Honeymoon in Rainy Colorado by William A Ware, and Bumming Around California," by John Cook

Utah Cine Arts

Combination film program and gadget night held the stage at the November 19th meeting of Utah Cine Arts Club, held at Newhouse hotel The gadget portion of the program was under direction of co chairman Al Morton Films presented included "Travels in Mexico," by Mr and Mrs Vern Lunt, and 'Paracutin, prize-winning kodachrome film by Carl Gray

New York Eight

Judging of entries in the annual club contest highlighted the November 17th meeting of New York Eight MM Motion Picture Club, held at the Pennsylvania hotel Entries were limited in footage up to 100 feet

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Start With Triangle Lighting

by DON MOHLER

Well begun is half done never applied with more force than to lighting home movies

Begin every one of your indoor shots by setting two or three lamps according to the Triangle Lighting formula

You will get the essentials of sound lighting technique almost automatically on every shot Look at the still pictures accompanying this article and notice what these essentials are

1 Plenty of light through all parts of the scene

2 All shadows—especially across faces—are clear not black

3 Extra light—from an angle—on faces

4 Light from the rear, or top, striking hair and faces

To get plenty of light, especially when filming indoors in color, the use of Photoflood No 2 lamps is recommended Three of these are the maximum that can be used on most home lighting circuits Good metal reflectors can increase the light from a bare photoflood lamp from four to six times, or Reflector Photofloods No 2 may be used

Better yet, for home movies, are the newer Reflector Photospots The light from these is concentrated in a zone just about equal to that coveted by the standard movie camera lens They are the nearest approach in amateur equipment to the powerful spotlights used in professional motion picture production They can therefore be used much farther back from the subject for an equal level of illumination resulting in a better distribution of light throughout the scene

Whatever lamps are used however, they *must all be alike*

How these lamps are placed is shown in the diagram Camera and subject are set up (that's what stand-ins are for) The camera light is placed right at the camera as near the lens as possible The distance from this lamp to the subject is measured A tape is suggested especially on closeups, but any measure, such as pacing off the distance, is workable An equal distance is measured off from the subject at right angles from the camera-to-subject line to locate a marker spot The side light is placed half way along a line from this spot to the camera light This is basic lighting A variation is to use the camera light in combination with a back light The back light is placed diagonally opposite the side light position and an equal distance from the subject It is usually used quite high and shining downward on the subject

A third variation is to use all three lamps, the camera light, the side light and the back light

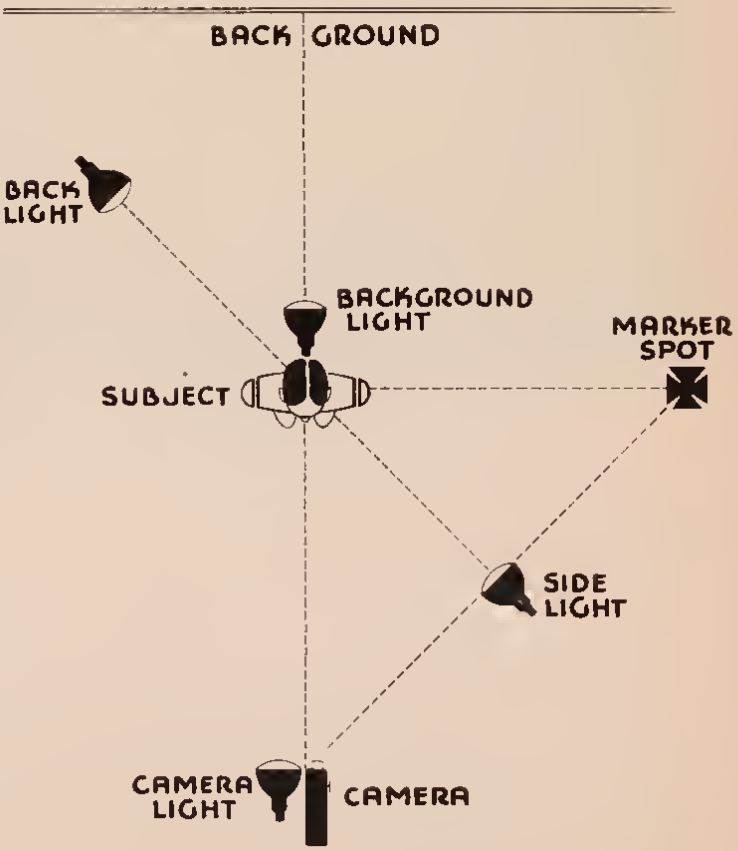
In those instances where the background is important to the scene, the subject should be placed well in front of the background and a background light immediately behind the subject shining full on that background can be used However, when a background light is used, it must be plugged into a separate circuit in most homes if it is the fourth light in the setup, or else either the back light or the side light must be eliminated so as to confine the lighting to three lamps

It is essential that the camera lamp never be moved very far from the camera Get it a few feet away and it fails to fill the scene with light It creates short shadows when moved that look bad in the finished picture unless placed with intent It is usually used a bit above the level of the camera lens and on the opposite side from the side light The side light incidentally is usually used somewhat higher than the camera light and directed down full on the subject

Direct light from the back light should be screened from striking the camera lens and if either the back light or the side light is raised to a considerable height it should be moved in toward the subject enough to regain the distance 'lamp to subject lost in raising it

Whether one, two or three lamps are used as shown here, exposure can be based from the light from the lamp at the camera alone in black and white photography In color filming when a side light is used it is perhaps better to close the camera diaphragm about one half stop more than if the side light is not used Whereas printed exposure tables can be used if carefully followed the use of an exposure meter for photography by artificial light is strongly recommended

The still pictures from professional movie productions shown here were not lighted according to anything so simple as 'Triangle Lighting' but the essentials are there and by careful analysis of good movie stills you can



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learn how to make variations on basic "Triangle Lighting" to get similar effects.

What each of the four lamps in the positions of "Triangle Lighting" can do is shown in picture No. 1. The camera light right at

PICTURE 1

the camera lens has filled all parts of the scene with light, especially putting some light in the shadows beneath the chin and nose and in the darker hair areas. The evidence of the side light which was used on the left (incidentally, the "Triangle Lighting" formula can be used in either a right or left hand arrangement) is seen in the extra brightness on the faces of the subjects and the short shadows beneath the nose and chin of Joan Caulfield as well as the extra roundness and modeling evident in her face.

The back light high on the left has been aimed directly at Joan's hair and serves to bring out its texture, color and quality as well as to separate her from the background.

The background light has been aimed directly behind the subjects and serves to keep attention in the center of the screen because it falls off gradually towards the corners. The human eye naturally goes to the brightest part of any scene.

In picture No. 2 a camera light, side light and back light have been used. Again the cam-

PICTURE 2

era light has filled the whole scene with general illumination. In a full length shot such as this it is important that all lights be pulled back as far from the subject as possible. The camera can remain in its best position and the lights moved back to occupy a bigger triangle. The reason for this is that if the side light is used too close on a full length picture the head will be over-lighted and the lower part of the figure under-lighted. To get coverage lights must always be used far back. That's why spot type lights are recommended for movie work.

From the direction of the shadows under the chin and beneath the hands and under the figure in the background it can be seen that the side light was used only slightly higher than the subject's head, was pulled closer to the camera so that it was but slightly to the side, and that to emphasize the height of the figure the camera angle was low. These are typical variations on a basic triangle (increasing distances of lamps, changing angle of side light and changing camera position) in an effort to get the best possible effect. It is notable too that the contrast between high lights and shadow is greater than in picture No. 1. This is achieved by moving the side light in just a little bit closer to the subject.

The back light was used on the same side as the side light in this instance, quite high and out of the picture to the right and aimed at the subject's head. Because the subject is close to the background no supplementary illumination is needed from a background light as a combination of camera light and side light has served to fill the scene.

Picture No. 3 is essentially made with only two lights, the camera light and a back light. In this instance the camera light has been used slightly to the right of the camera lens

PICTURE 3

and a little above it, in order to fully light the face of the girl while throwing shadows across the face of the man. The back light has been used quite high and brought around to more nearly the center of the two faces, outlining both profiles with light, separating them from the background and illuminating the hair.

This arrangement of camera light and back light is especially good where confused and distracting backgrounds needs to be minimized or where, with older subjects, too much modeling across the face might bring out blemishes or flaws in skin quality.

Another simple two lamp arrangement can be seen in picture No. 4. Essentially there are only a camera light and a side light on the subjects. The interesting variation in the placement of the side light evident here by the short shadow directly under the nose of the

(Continued on Page 450)

PICTURE 4

The Marquee-Note
of Quality

"Color by
TECHNICOLOR"

Technicolor Motion Picture Corporation

Herbert T. Kalmus, President
and General Manager

CINEMA WORKSHOP

(Continued from Page 440)

should be photographed with a *wide angle lens* focussed sharply on the lettering and stopped down sufficiently to keep the background acceptably sharp It is important to make sure that both the camera tripod and the framework supporting the glass are absolutely level Also, be careful to place the glass at such an angle that it will not reflect either the sun's rays or the image of the cameraman

Superimposed Titles

There are two standard mechanical methods in which title lettering can be superimposed on a background scene *double printing* and *double exposure*

In *double printing* two separate negatives are printed, one after the other, onto a single piece of raw stock One negative contains the lettering (which was photographed white on black), and the other negative is that of the particular scene that is to serve as the title s background The main advantage of this method is that the relative densities of the two negatives can be carefully controlled in the laboratory during printing

The other method, *double exposure* is simpler and requires no special printing, but calls for greater precision in exposure to assure a good result A strip of film is first run through the camera to record whatever scene has been chosen for the background Then the same film is rewound (either in the camera or in the darkroom), and run through the camera again, this time recording just the white letters (on a black background) of the title The white letters "burn through" the background image to form the superimposite. To achieve the proper exposure balance, the background scene should be *under*-exposed by about half a stop, and the letters should be *over* exposed by half a stop

A neat variation of straight superimposure is the device in which the titles appear over an action background scene, with the letters of the last credit fading out and the background remaining to become the first scene of the action of the picture This effect is not difficult to achieve but it requires precise measuring and timing

Let us say, by way of illustration, that we are going to introduce a travel film with a *moving shot* along a mountain road, our camera eventually stopping in front of the resort hotel which is to be the main locale of the action We find by means of a simple timing test, that our titles and credits will require 20 feet of footage With this in mind, we rehearse our travel shot a couple of times until we know that we will have exposed at least 20 feet of scenery before the camera stops in front of the hotel

We proceed to film the scene as rehearsed and let the camera continue to run after we have stopped in front of the hotel, so that the action of the first scene of our picture will be recorded Next, we rewind our film and double-expose our titles onto the first 20 feet of the scene On the screen we will get the effect of a travel shot along the road while the credits are being read As soon as the lettering is read it fades out and the car drives up to the hotel, where the action of the screen story itself will begin to unfold

In order to make sure that you have a common point from which to accurately measure the two scenes, always shoot such titles at the beginning of a roll Remove the lens and run off your leader until the perforations at the head of the roll can be seen in the aperture opening Use these perforations as your guide and set your footage counter at 0 When you are ready to make your second exposure on the rewound roll, begin once more at the perforations

Superimposed titles need not always be made over an action background, however They are also effective when superimposed on a close up of an emblem or insignia, or any other subject that ties in

directly with the theme of the picture. They are especially attractive when shot in color

Special Effect Titles

Certain subjects, especially comedies, require unusual titles In making such titles it is important that they be smoothly executed, since tricks that show the "wires behind the scenes" succeed only in looking amateurish

Animated titles are perhaps the trickiest and most effective type of special effects titles They require a great deal of patience and precision on the part of the cameraman From the mechanical standpoint it is necessary to have a good solid camera base (preferably of the type that allows the camera to be mounted vertically) or an animating stand—plus a camera that has a single frame lever

With this sort of set-up it is possible to film titles that materialize out of a mess of scattered blocks or cut-out letters To get this effect, it is best to mount your camera *upside-down*, and arrange your letters carefully to form the title as it will look when assembled on the screen. Single frame enough footage for the title to be read and then, for each frame exposed, begin to disarrange your letters little by little until you have a chaotic jumble of alphabet When the films have been returned from processing, cut out this upside down segment and splice it right side up into the body of the film The effect will be that of scattered blocks or letters moving precisely into position

By using painted sheets of celluloid carefully registered on pins, you can make letters materialize out of almost any kind of painted composition Here, again, the effect is achieved by single-framing, and a great many separately painted cells must be made so that the appearance of the letters will be smooth

You can make animated titles by making each letter appear to pop into place—or you can make the titles seem to spell themselves out in shells, beads, etc, by mounting your camera upside-down, carefully arranging your units to spell out the title, then removing one bead or shell for each frame exposed

Simple devices can be purchased or constructed for making *flip flop* and *scroll* titles The flip-flop device consists of a title board mounted on a pivot so that it can be flipped over while the camera is running to show another title on the back of the board The scroll device consists of a drum onto which the title is mounted, and a small motor to move the drum around at a uniform rate of speed in front of the lens.

Fades, dissolves and *wipes* add a great deal to the effectiveness and professional appearance of the titles, and can easily be made with a camera having a wind-back device and a dissolving shutter—or they can be optically printed by a laboratory

Titles should be lighted by means of two No 2 photoflood lamps placed on either side of the title at a uniform distance from its center Special lighting can be had by projecting shadows onto the title board or by shining a concentrated spot of light onto the center of the lettering In timing your titles, read them over rapidly *twice* while the camera is running This will allow your slower readers in the audience sufficient time to read the lettering

NEXT ISSUE Part 19, Presenting Your Film.

Continuous Conveyer Speeds Camera Production

A merry go-round is helping to speed the production of cameras at the Eastman Kodak plant The continuous conveyor system really serves as a moving storeroom as well as a most efficient transportation device for camera parts on the assembly line, greatly aiding production Company states this is the first time that conveyors have been utilized for relatively small products, such as cameras

Monroe With Bell & Howell

H S Monroe has been appointed industrial sales manager of the Bell & Howell Company, according to announcement by president J H McNabb Monroe, active in the photographic field since 1926, was previously a producer of commercial films, and was with the U S Navy for four years in the training film branch during the war

To provide the 20,000,000 gallons of water required daily by Kodak Park, the Eastman Kodak Company maintains its own water plant and special purification unit on the shore of Lake Ontario A new suction pipe more than a mile in length and 58 inches in diameter was recently installed to meet even greater demands for fresh water

TRIANGLE LIGHTING

(Continued from Page 446)

girl is that the side light has been pulled in so that it is almost exactly at the camera to subject line and has been used just a little above the level of the camera lens When a side light is brought in this close to the camera light some further decrease in exposure is called for

Incidentally, whereas the position of the side light shown in the diagram is a safe one for almost all picture purposes that light so frequently used for emphasis is often used to strike the principal subject full in the face If, as in this scene, the subject is facing the camera the side light will be used above the camera. If the subject is facing forty-five degrees right or left the side light might be used forty five degrees right or left By directing the side light full into the front of the face the prominent planes of the face are high lighted, the bone structure is brought out modeling is good and the contours of the face are brought out to advantage

In picture No 5 all lights have been used well back Essentially this is a three light arrangement of camera light, side light and back light The open shadows reveal the presence of the camera light The side light which has been used to the right and slightly above the head level of the central figure is evidenced by

PICTURE 5

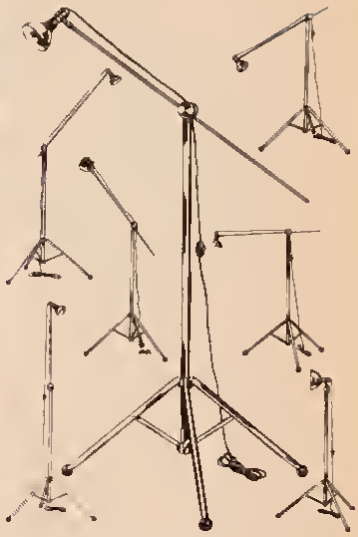
the shadow beside his nose and under his chin and the effect of the back light can be seen on the girl's hair the hair of the man in the center and on the face of the man at the right who because of his position is almost side lighted by the back light

While it is true that professional movie sets will be literally a constellation of lights, in so far as the central subjects are concerned, the camera light, side light and back light are evident in almost all movie scenes and are arranged on some variation of the 'Triangle Lighting formula To this small constellation of lights experienced workers add other lights from myriad directions and for multiple purposes but it does remain an almost fixed constellation to which all lesser lights are related

And it is a basic arrangement on which the movie maker can rely for good, consistent results, simply achieved

And if he prefers to use the jargon of the movie maker he can call his side light the 'Key his camera light the 'Fill, and appear quite profound in working with something essentially simple

Baby Boom Utility Light by Radiant



Radiant Manufacturing Corp, manufacturers of projection screens, announces an addition to the Radiant product family The newcomer is their new Baby Boom Utility Light, a device specifically designed to fulfill a long-felt need among home photographers for a flexible, mobile light unit

Flexible as a ballerina, versatile as a magician, this neat performer provides the amateur with "studio calibre" lighting at extremely low cost

Operation is simple—boom rod is held in place by a pair of matched teeth metal grippers a twist of knob on grippers and boom adjusts to an almost limitless variety of angles and heights from vertical to more than 90 degrees No counter balance is required Folding tripod features exclusive Radiant finger tip control, to open or close unit at the flip of a finger

Perfect for use with floodlight, spot light, or reflector the new Radiant Baby Boom is made of steel and aluminum to create a sturdy, lightweight unit, which folds up compactly for easy carrying and storage

Post Acquires 16 mm. Rights To Monogram Features

Post Pictures Corporation of New York has acquired exclusive 16 mm distribution rights to 36 Monogram entertainment releases which are now available to the non-theatrical market through dealers and film libraries

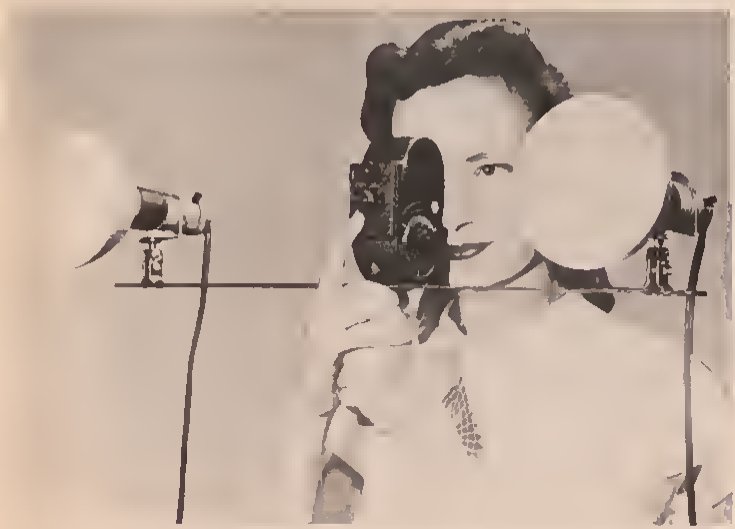
94 Years for Bausch & Lomb

Bausch & Lomb Optical Company, of Rochester, N Y., manufacturers of precision optical lenses, celebrated 94th anniversary of company s founding last month Firm was originally founded by John J Bausch in a small optical shop, with capital of $60 loaned by Captain Henry Lomb Today, the company is recognized as a leading manufacturer of scientific optical instruments, and has been prominent in the development of lenses for motion picture photography

New 35 MM. Enlarger

New fixed focus enlarger in the low priced field for 35 mm and bantam film, is announced by Standard Metal Products of Chicago Designed for home use, it makes enlargements to post card size from the minnie negatives

HANDI-BAR MOVIE LIGHT STAND



Pictured abava is tha handi-bar mava light racantly addad by the Bell & Howell Campany, Chicaga ta its lina af mavia accessaries Whathar the handi-bar is usad with ar withaut a tripad individually-cantrallad light sackets maunted in swivels at aithar end may ba swung with tha camara ar paintad in any direction that suits the aparator Either photaflaad reflectar bulbs ar spatlight bulbs may ba usad ta furnish illumnatian

Twin Speaker Unit For Kodascope FS-10-N

A twin-speaker unit, offering greatet sound volume and definite gains in tonal quality, is available now—in strictly limited quantities— as standard equipment with Sound Kodascope FS 10 N Projectors

The unit consists of two twelve-inch speakers built into the halves of a convenient carrying case that can be set up in several ways—joined or separated—to make possible optimum sound coverage in any auditorium Set side by side, placed at an angle to covet the audience, or located at opposite sides of the auditorium stage or platform and connected by an accessory cord, the twin speakers offer a flexible means of adjusting sound to the arrangement of the seats and the size and shape of the auditorium

Since the speakers can utilize the full output of the amplifier, there s greatet sound volume when it's needed And, because these larger speakers handle the power with capacity to spare, there are marked tonal advantages at high sound levels ovet single speakers The sound is always cleat, distinct and undistorted

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To control production and processing conditions and to air-condition the many buildings where Kodak Films and Papers are made, a refrigeration unit with an average daily production equivalent to 15,000 tons of ice is operated at Kodak Park

International Federation Of Cine Clubs Formed

An International Federation of Cine Clubs was launched at the recent Cannes International Film Festival, with founders including tepresentatives mainly from European and South American countries Headquarters of the Federation will be in Paris

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The Kodak Research Laboratories at Kodak Patk, Rochester, N Y, are the latgest laboratories in the world devoted exclusively to research on problems pertaining to photography More than 500 people are continually searching for additional information on the "why and the how of picture taking

NEW FILMO 8 MODEL INTRODUCED

OFFERING many features never before built into any 8 mm camera, the Filmo Auto 8 magazine loading 8 mm movie camera is announced by Bell & Howell Company, Chicago

Some of the outstanding innovations incorporated in B&H's newest Filmo are

Two Lens Turret—The two-lens turret introduces a unique lens-switching system that makes possible instantaneous interchange of lenses while the camera is in photographing position The second lens is always ready for instant use and the matching positive viewfinder tides around with the lens and is automatically positioned The Filmocoted ½' f/1 9 and 1½ f/3 5 focusing mount lenses are interchangeable with other special purpose lenses

Lens-Seating Arrangement — B & H points out that the lens-seating arrangement is of entirely new design, too, a feature which permits the operator to screw the lens firmly into the turret and then adjust the graduation marks to most convenient position for individual reading

Magazine Loading and Ejector System—Loading and unloading the Auto-8 is said to be fast and exact, since there are no sliding drawers or cumbersome ejector devices, and B&H claims that the finger tip ejector can be operated even with

gloved hands B&H states further that in the interlock between ejector and film footage dial lies a new 'mistake proof' feature For convenience of Auto-8 users, the ejector button will not dislodge the magazine unless and until the footage dial is reset The operator can t forget to reset the dial

Audible and Visible Footage Indicators—The Filmo Auto-8 has a nine-foot film run per winding, enough for three longer-than-average scenes And, so that the movie maker will not be cut off in the middle of a scene, a warning click sounds at a point two film feet before the end of the governor-controlled, constant-speed run In addition, B&H explains, there is a pointer which appears in the viewfinder at three-inch intervals throughout the film run A film-end indicator drops into view at the end of the full 25-foot run

Operating Speeds—There are five operating speeds (16, 24, 32, 48, and 64 frames per second), a single-picture release, and a continuous operation lock that allows the movie maker to get into the picture himself, The Auto-8 was designed so that different positions of the same control button are responsible for the three types of performance

Dressed in a rich brown, wear-resistant finish with gleaming chromium trim, the Filmo Auto-8 is described by Bell & Howell as 'sleek, but business-like in its freedom from functional contours The 2' x 3½ x 5' Auto 8 is small enough to fit a coat pocket, and with the handy carrying cord that is attached, movie making can be a matter of a moment s notice

Like all B&H products, the new magazine loading Auto-8 is guaranteed for life

PARIS LETTER

(Continued from Page 437)

this condition was common with the other lots

In discussing the French lighting technique with these men, I asked several of them separately why they invariably employed the flat lighting which was discarded here twenty years ago I spoke of the American practice of modeling for three-dimensional effects by using multiple light sources The answer may have been given in good faith, but it still sounded like double-talk to me They all replied that the majority of their films were serious drama, they seldom made comedies 'In the drama," they said, "there is no occasion for modeling and complicated lighting techniques That stuff is only for comedies"

Since they seemed to be serious about it, I went away mumbling that answer over and over again They tell me I still have a haunted look in my eyes It's only that I don't understa-a-and '

The fact remains, however, that the French make some excellent pictures from the story treatment angle at least the ones we see and there is little wrong with their industry which cannot be cured by enough money and equipment, but at present they are short of both The financial situation has become so acute that Gaumont and Pathé have just consolidated, so that they 'might have more adequate means of production ' As of this month, the report comes from Paris that the industry is at a new low and there seems to be little prospect for any great activity in the near future

Victor's New Plant

New factory and office building costing in excess of $1,500,000 will be constructed as soon as materials become available by Victor Animatograph Corporation of Davenport, Iowa, according to announcement by president Samuel G Rose Floor space of 150,000 square feet will allow for centralization of manufacturing facilities, and will greatly increase capacity for the various types of 16 mm motion picture equipment marketed under the Victor name

Ansco Expands Processing

Processing of Ansco color amateur motion picture film will be accentuated to double of present capacity with the opening of a new processing laboratory in Chicago last month, according to general sales manager C W Priesing.

Laboratory, equipped with latest types of processing machinery, is designed to handle both Ansco color and black-and white amateur film, and will provide rapid processing service for users of Ansco amateur film in the midwest area

"BLACK NARCISSUS"

(Continued from Page 433)

Some 120,000 feet of tubular steel formed the framework for this monumental bit of landscaping. Timber formers were fixed to the scaffolding, and they in turn were covered with pre-fabricated plaster or cement sheets, painted to resemble the natural rock. In constructing the framework, abnormal stress beyond usual wind and weight considerations was allowed for.

Thirty tons of gravel and soil were hauled by rope and pulley to the top of the mountain in order to make paths and terraces. Trees and plants from the studio grounds were tubbed into the mountainside to provide foliage, and the terraces were planted with a special quick-growing variety of seeds to simulate the cultivated areas. The pathways up the mountainside were strong enough for horse traffic, but narrow and winding to give a true impression of height and grade. Large boulders, faithful in color and shape to the rock strata of the locale, were placed here and there to satisfy the demands of the story and the general decorative effect.

Art Direction at Its Best

Alfred Junge, who created the spectacular settings for "Stairway to Heaven" is also responsible for the colorful sets in Black Narcissus. For this picture he was called upon to design settings which, though located in one of the Northern provinces of India, were creations of the author of the book. Thus, while the customs and traditional costumes of the Nepalese, Bhutanese and Tibetan peoples who mingle in this province were carefully duplicated, the color and structure of the architecture had to be what might have been.

The action of the story takes place mainly in the former "House of Women," which the nuns transform into their convent school and hospital. Before deciding on the individual sets, Mr. Junge made clay models of the entire palace in order to establish a geography for the structure that would suit the action described in the book. In designing the sets, he had to look at each room from three separate points-of-views: first, the room as it was when purely native; second, the innovations which the nuns made in trying to obliterate the highly-colored past of the buildings, and thirdly, the atmospheric struggle between the "old" and the new, with the *old* gradually winning out as the jungle creeps in on the cultivated patch.

In the story, the nuns transform the old palace bathroom (a luxurious chamber with a sunken alabaster pool and semi-nude Indian figures painted on the walls) into their dispensary. They place cabinets full of medicine bottles at strategic points to hide some of the more blatant nudes, and the pool is covered with thick plain wooden planks. When the nuns try to whitewash some of the murals on the walls, they find that the figures reappear through the paint.

With these events in mind, Alfred Junge had to imagine what the rooms would have looked like before and after the change-over. When he came to design the tiny chapel for the nuns he had to think: "Now what could this room have been before? ah! perhaps a stable." So we see the old disused stable, with its cobwebs and dust and ornate stalls transformed into an austere and lovely little chapel with brass altar ornaments and greenery decorations for the Christmas service.

Another ingenious change-over was that of the Sister Superior's office. While examining old Indian prints and paintings, Art Director Junge noticed that birds, both in and out of cages, were often featured—so he decided that the room might originally have been an aviary. We first see it filled with grimy cages of birds long since set free. Later, after the nuns have cleaned it up, the room appears very plain except for a few remaining cages to which birds have returned through the windows. Their gay plumage and flutterings about the room add a brilliant touch to these scenes.

The most beautiful interior set in the film is the Blue Room of the palace with its long blue walls, red framed mirrors and delicately latticed windows. The flam-

boyant color scheme is typically Indian, and it serves as a most appropriate background for one of the more dramatic sequences On the wall of this room hangs a picture which, in Indian characters, tells the story of the palace It was designed and executed in the Art Department at Pinewood, but has such an appearance of age and authenticity that it fooled even experts on Indian art

The brilliantly colored costumes in Black Narcissus add much to the tapestry like pageantry of the film, and help to bring out many important subtleties of the story The sharp difference in psychology between the natives and nuns is symbolized in the contrast between their respective habits The brightly colored costumes of the natives blend naturally with the flamboyant chambers of the palace, but contrast sharply with the austere white vestments of the nuns The local Indian ruler and his son appear in lavishly bejeweled costumes of gold brocade and sequins—creating a private blaze of color wherever they go

The Brain Behind the Lens

Cinematographer Jack Cardiff, A.S.C., whose brilliant direction of photography does much to make "Black Narcissus" a visual treat, is known as Britain's leading Technicolor cameraman

Born in 1914, the son of a music hall comedian, he became a child actor in films at the age of four, and by the time he was fourteen he was working in the silent version of The Informer His interests later shifted from acting to the technical side of film production, and he became an assistant cameraman at the Elstree Studios near London

While at Elstree, he worked with such notable directors as Rene Clair, Jacques Feyder, Alfred Hitchcock and Fred ("Ben Hur") Niblo During his apprenticeship he learned a great deal about technique from Hollywood's guest cinematographers who came over to film special pictures

In 1936 Cardiff was offered a job in the camera crew on 'Wings of the Morning,' the first Technicolor film made in England Becoming highly enthusiastic about the new color process, he joined Technicolor Ltd as a staff cameraman, and was sent around the world photographing World Window travelogues

His next assignment took him to the Sudan for location work on Alexander Korda's Four Feathers,' and in the summer of 1939 he was sent to France to make the first French Technicolor film, Main Streets of Paris Production was suspended when war was declared

After shooting The Great Mr Handel, he sailed to America in convoy shooting 'Western Approaches," the story of the perilous life of the merchant seamen bringing food and munitions to besieged Britain His inspired Technicolor photography of the crew of a torpedoed merchantman adrift for days in the Atlantic established a new high for harsh realism in color documentaries

He next went to Egypt for location shooting on Shaw's 'Caesar and Cleopatra," and in 1945 teamed up for the first time with Michael Powell and Emeric Pressburger of *The Archers* to film the magnificent "Stairway to Heaven" This technically brilliant film set a new standard of photographic excellence and established Jack Cardiff as Britain's outstanding color camera artist His work in "Black Narcissus" not only assures his reputation, but goes even farther in illustrating hitherto unrealized possibilities for the kinetic use of color on the screen

Cardiff's style in color cinematography is based on a solid understanding of the complex Technicolor process, its chemistry and limitations

His lighting has a crisp clean quality, softened by enough contrast to give it depth and modelling His use of colored light stems from an accurate emotional interpretation of the drama of the scene He is a daring but sure experimentalist, adapting original subjective angles and effective low-key lighting patterns to bring out a good deal more of the subtle meaning of the story than is indicated in the script

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SPECIAL EFFECTS

(Continued from Page 431)

city streets These background 'movies' have been the subject of serious studio censorship, with magazine writers either refused a view of them or permitted to see them only after crossing their hearts not to tell

So what happens? The picture makers themselves show you how it's all done in "Variety Girl," a story of a movie-struck girl's adventures behind the scenes in Hollywood Seventeen-year-old Mary Hatcher, a singing star of 'Oklahoma,' accidentally walks behind a transparency screen Her shadow goes bobbing across a Pennsylvania forest where, for story purposes, Cecil B DeMille is directing his indispensable Indians

Electric Repeater Devised

The other development is a gadget which Jennings and a former Navy radar engineer, young Gil Standiff, invented It is an electronic "repeater which will record on a separate film every move made by the camera to which it is wired. With this operating, the camera, heretofore required to remain stationary, can photograph the background in daylight and repeat, move for move, the same scene to 0001 of an inch accuracy at night Thus, stars and lights photographed with longer exposures, for 'The Big Clock' were superimposed over the vivid daylight shot

The repeater, coupled with a highly technical 'nodal point camera mount' and activating a 'constant focus photographing channel' contrivance, also will make it easier for trick experts to mat (or block out) unwanted backgrounds from each frame of film and permit other backgrounds to be substituted For instance, a miniature fort can be photographed, thousands of persons can be put through their paces in any old field and then dropped into the fort with greater ease.

Similarly, it will simplify fantastic shots like that of nine Fred Astaires dancing with themselves in a recent picture This trickery, incidentally, was accomplished by having Astair perform his dance three times— the first, close up, in the center of the film, the second and third times to the right and left sides of the film The right and left shots were duplicated with prisms, and then the three dances were "matted" onto one film

Special Effects Accomplishments

Jennings engineering feat in merging the two remote rivers was movie trickery of a high order The 'Unconquered' script called for Gary Cooper and Paulette Goddard, pursued by Indians, to paddle down a river's rapids and go over some waterfalls One of the rivers had rapids but no falls, the other had falls but no rapids Each river was photographed separately, and the two films were matted together to look like one stream

Using this matted film for a transparency background, Jennings had Cooper and Goddard photographed while being dropped five feet over a studio-made torrent that blended with the background At the bottom of this drop, the stars were supposed to grasp an overhanging tree limb and swing themselves under the falls to the safety of a hidden ledge But there was no tree growing near the originally photographed falls! So artists painted a tree limb over each frame of the matted film Then a live "double for the limb was installed on the studio tank stage, and stunt men and women, doubling for Cooper and Goddard in a canoe, slid down an invisible piano wire track through a man-made waterfall and grabbed, as it were, the little-tree-that-wasn't there By quick shifting of scenes, the trick artists will show Goddard and Cooper, themselves, falling through space (for five feet), doubles falling the hazardous part of the drop and grasping the limb, then the real principals climbing off the ledge

We didn't do this to hoax anyone," Jennings explained "It was the only way it could be done And it adds entertainment to pictures

In spite of a new problem every day, Jennings whistles while he works, walks with slow heavy movements, has had time to become a 32nd degree Mason, plays a hot game of golf, and can look back on almost three decades of motion picture photographic achievements with considerable satisfaction Shortly after he came from his home in Salt Lake City to take a job as assistant cameraman in 1919 with Lois Weber's one-woman producing company he was doing the first tricky, moving titles for Thomas Ince These, simple by present standards, consisted of pasting titles on glass and sliding them over painted scenes They kept the other fellows in the business fooled for a long time," he recalls

The work attracted DeMille, and Jennings has worked with him off and on, at Paramount, ever since He created the odd perspective for "Alice in Wonderland," painted the bridge for 'For Whom The Bell Tolls,' and once was bawled out for "building' a "castle" in Oregon which an executive seeing it for the first time thought cost thousands of dollars "It was seven feet high and cost fifty dollars," he laughs

Jennings says he will put one of his many inventions up for an Academy Award this year and the complete assembly next year Amazing as they seem, they will not, Jennings thinks, provide Paramount permanent advantage over other companies

"They'll probably trade the junk for an actor or a can of raw film," he says, fatalistically

Current Assignments of A.S.C. Members

MEMBERS of the American Society of Cinematographers were engaged as Directors of Photography in the Hollywood studios during November as follows

Allied Artists

• Stanley Cortez, 'Smart Woman,' with Constance Bennett, Brian Aherne, Barry Sullivan, Michael O'Shea

Columbia

• Les White, 'The Fuller Brush Man,' (Edward Small Prod.) with Red Skelton, Janet Blair, Don McGuire, Hillary Brooke, Ross Ford

• Ernest Laszlo, 'Lulu Belle,' (Benedict Bogeaus Prod.) with Dorothy Lamour, George Montgomery, Glenda Farrell, Otto Kruger, Greg McClure

• Henry Freulich, 'Adventures of Silverado,' with William Bishop, Gloria Henry, Forrest Tucker

• Vincent Farrar, 'My Dog Rusty,' with Ted Donaldson, Ann Doran, John Litel, Mona Barrie

• William Snyder, 'The Loves of Carmen,' with Rita Hayworth, Glenn Ford

Eagle-Lion

• John Boyle, 'Mickey' (Cinecolor) with Irene Hervey, Bill Goodwin, Lois Butler, Harrie McDaniel, Skip Homeier

• Charles Van Enger, 'The Noose Hangs High,' with Bud Abbott, Lou Costello, Kathy Downs, Mike Mazurki

• John Alton, 'Corkscrew Alley' with Dennis O'Keefe, Claire Trevor

Independent

• Ben Kline, 'Half Past Midnight' (Sol Wurtzel Prod.) with Kent Taylor, Peggy Knudsen, Joe Sawyer, Walter Sande

• George Robinson, 'The Challenge,' (Reliance) with Tom Conway, June Vincent, Richard Stapley

• Mack Stengler, 'Let's Live Again,' (Frank Seltzer Prod.) with John Emery, Hillary Brooke, Taylor Holmes, Diane Douglas

Metro-Goldwyn-Mayer

• Hal Rosson, 'Homecoming,' with Clark Gable, Lana Turner, John Hodiak, Anne Baxter, Cameron Mitchell

• Charles Schoenbaum, 'Hills of Home,' (Technicolor) with Edmund Gwenn, Janet Leigh, Tom Drake, Donald Crisp, Reginald Owen, Rhys Williams, Lassie

• George Folsey, 'State of the Union,' (Liberty Films) with Spencer Tracy, Katharine Hepburn, Van Johnson, Angela Lansbury, Adolphe Menjou

• Robert Surtees, 'The Big City' with Margaret O'Brien, George Murphy, Robert Preston, Danny Thomas, Katin Booth, Betty Garrett, Lotte Lehman

Monogram

• Harry Neumann, 'Song of the Drifter,' with Jimmy Wakely, Cannonball Taylor, Mildred Coles

• Marcel LePicard, 'Angels Alley,' with Leo Gorcey, Huntz Hall, Geneva Gray, Frankie Darro, Dewey Robinson, Wade Crosby

• William Sickner, 'Charlie Chan in New Orleans,' with Roland Winters, Victor Sen Yung, Mantan Moreland, Douglas Fowley

Paramount

• John Seitz, 'The Long Gray Line' with Alan Ladd, Donna Reed, Tom Neal, Audie Murphy, Dick Hogan, Russell Wade

• Lionel Lindon, 'Sainted Sisters,' with Veronica Lake, Joan Caulfield, Barry Fitzgerald, George Reeves, William Demarest, Beulah Bondi

• Ray Rennahan, 'A Connecticut Yankee,' (Technicolor) with Bing Crosby, Rhonda Fleming, Sir Cedric Hardwicke, Murvyn Vye, Virginia Field, William Bendix

• Daniel Fapp, 'Hazard,' with Paulette Goddard, Macdonald Carey, Stanley Clemens

RKO

• Lucien Ballard, 'Berlin Express,' with Merle Oberon, Robert Ryan, Charles Korvin, Paul Lukas, Roman Toporow, Robert Coote, Peter Von Zetneck

• Joe Valentine, 'Joan' (Sierra Pictures) (Technicolor) with Ingrid Bergman, Jose Ferrer, John Emery, George Coulouris, Richard Ney, Hurd Hatfield, Robert Barrat, Selena Royle, Gene Lockhart, Roman Bohnen

• Joseph Walker, 'The Velvet Touch,' (Independent Artists) with Rosalind Russell, Leo Genn, Claire Trevor, Sydney Greenstreet, Leon Ames, Frank McHugh

• Roy Hunt, 'The Arizona Ranger,' with Tim Holt, Jack Holt, Steve Brodie, Nan Leslie

Selznick

• James Wong Howe, 'Mr. Blanding Builds His Dream House,' with Cary Grant, Myrna Loy, Melvin Douglas, Dan Tobin, Louise Beavers, Cliff Clark

Twentieth Century-Fox

• Harold Jackson, 'Ballad of Furnace Creek,' with Victor Mature, Coleen Gray, Glenn Langan, Reginald Gardiner, Charles Kemper

• Joseph MacDonald, "Call Northside 777," with James Stewart, Richard Conte, Helen Walker, Lee J. Cobb, George Tyne

• Joe LaShelle, 'Deep Water,' with Dana Andrews, Joan Peters, Cesar Romero, Anne Revere, Dean Stockwell, Mae Marsh

• Leon Shamroy, 'This Is the Moment,' (Technicolor) with Betty Grable, Douglas Fairbanks, Jr., Cesar Romero, Walter Abel, Reginald Gardiner, Harry Davenport

• Norbert Brodine, 'Sitting Pretty,' with Robert Young, Maureen O'Hara, Clifton Webb, Richard Haydn, Celeste Holm

• Arthur Miller, 'Walls of Jericho,' with Linda Darnell, Cornel Wilde, Anne Baxter, Kirk Douglas, Ann Dvorak, Marjorie Rambeau, Coleen Townsend, Barton MacLane

Universal-International

• Russell Metty, 'All My Sons,' with Edward G. Robinson, Burt Lancaster, Mady Christians, Howard Duff, Louisa Horton, Frank Conroy

• Milton Krasner, 'Up in Central Park,' with Deanna Durbin, Dick Haymes, Vincent Price, Albert Sharpe, Thurston Hall, Tom Powers, Hobart Cavanaugh, Moroni Olsen, Nelle Fisher

• Irving Glassberg, 'Casbah,' (Marston Prod.) with Yvonne De Carlo, Tony Martin, Marta Toren, Peter Lorre, Thomas Gomez, Hugo Haas, Katherine Dunham

• Hal Mohr, 'Another Part of the Forest,' with Frederic March, Ann Blyth, Dan Duryea, Edmond O'Brien, Florence Eldridge, John Dall, Fritz Leiber

• Maury Gertsman, 'Are You With It?,' with Donald O'Connor, Olga San Juan, Martha Stewart, Lew Parker, Par Dane, Walter Catlett, Louis Da Pron

Warners

• Carl Guthrie, 'April Showers,' with Jack Carson, Ann Sothern, Robert Alda, S. Z. Sakall

• Robert Burks, 'To the Victor,' with Dennis Morgan, Viveca Lindfors, Victor Francen, Bruce Bennett, Dorothy Malone, Tom D'Andrea, Eduardo Ciannelli, Richard Walsh

• Ted McCord, 'Johnny Belinda,' with Jane Wyman, Lew Ayres, Charles Bickford, Agnes Moorehead, Stephen McNally, Jan Sterling

• Ernest Haller, 'Winter Meeting,' with Bette Davis, James Davis, Janis Paige, John Hoyt, Florence Bates, Walter Baldwin

• Woody Bredell, 'Adventures of Don Juan,' with Errol Flynn, Viveca Lindfors, Robert Douglas, Romney Brent, Alan Hale, Robert Warwick

25 YEARS AGO

With A.S.C. and Members

• Phil Rosen, A S C, was directing Rudolph Valentino and Wanda Hawley in The Young Rajah for Paramount, with James Van Trees A S C handling the photography

• Reginald Lyons, A S C, was enroute to Texas to photograph a western feature

• Ben Kline, A S C, had completed photography on a Frank Mayo starrer, which Stuart Paton directed for Universal

• E B Du Par, A S C, and Floyd Jackman, A S C, were filming Little Heroes of the Srreet, Warner Brothers feature with Wesley Barry and Mary Prevost

• Bob Kurrle A S C, joined the Metro camera staff to film Country Love, featuring Billie Dove

• Karl Brown, A S C, was Director of Photography on The Old Homestead" directed by James Cruze for Paramount with Theodore Roberts starred

• Also at Paramount, Paul Perry, A S C, had finished shooting "Pink Gods for director Penrhyn Stanlaws and Faxon Dean, A S C, was assigned to the Mary Miles Minter starrer, Cowboy and the Lady'

• Harold Lloyd had Walter Lundin, A S C, in charge of the cameras for his starring comedy, Doctor s Orders '

• Arthur Edeson, A S C, had a dozen cameras under his charge for shooting of spectacular scenes for Douglas Fairbanks' "Robin Hood

• Walter L Griffin, A S C, was en route to Alaska to function as chief cinematographer for David Hartford productions

• Herford Tynes Cowling, A S C, globe trotter, goes to Africa to photograph the Theodore Roosevelt trail country

• Charles Rosher, A S C, returned from Italy where he was Director of Photography on "Sant' Ilario for Ultra, and reported that lack of unity and organization hampered Italian production efforts

• Sol Polito, A S C, left for New York to head the cinematographic department for Edwin Carewe Productions, in addition to handling photographic direction

• Mitchell Camera Company was reorganized and incorporated under the firm name of Mitchell Camera Corporation, with capitalization of $500,000 At a meeting of the concern, H F Boeger was re-elected president and general manager, M J Boeger, vice-president and George Mitchell, designer and perfector of the Mitchell camera, secretaty treasurer A new factory was to be etected ar cost of $40,000

• Paul Iribe, art director for Cecile De Mille addressed an A S C open meeting on The Art Director and the Cinematographer"

• John Seitz, A S C, was in New York to continue as head cinematographer for Rex Ingram productions to be produced in the east

• Edward Kull, A S C, was directing Universal s series of productions based on Jack London s Tales of the Fish Patrol," starring Jack Mulhall

• Al Gilks, A S C, was Director of Photography on the Gloria Swanson starrer at Paramount, His American Wife

• Glenn R Kershner, A S C, just back from Tahiti and Papeete, described adventures while making 'Passions of the Sea" for Metro Kershner handled the second camera on the expedition under Clyde De Vinna, A S C, who was in charge of photography

• Total of 20 cameras were used to film the forest fire scenes for Reginald Barker s production of "Hearts Aflame ' Asbestos-lined camera booths were used to protect cameras and cinemarogtaphers from the fire, as many set-ups were directly in the path of the flames

• James Van Trees, A S C, was in Hawaii photographing the Betty Compson starrer, The White Flower, with many of the locations in the vicinity of Kileaua volcano

• A S C members were selling their DeBrie and Pathe cameras in favor of the new Mitchells

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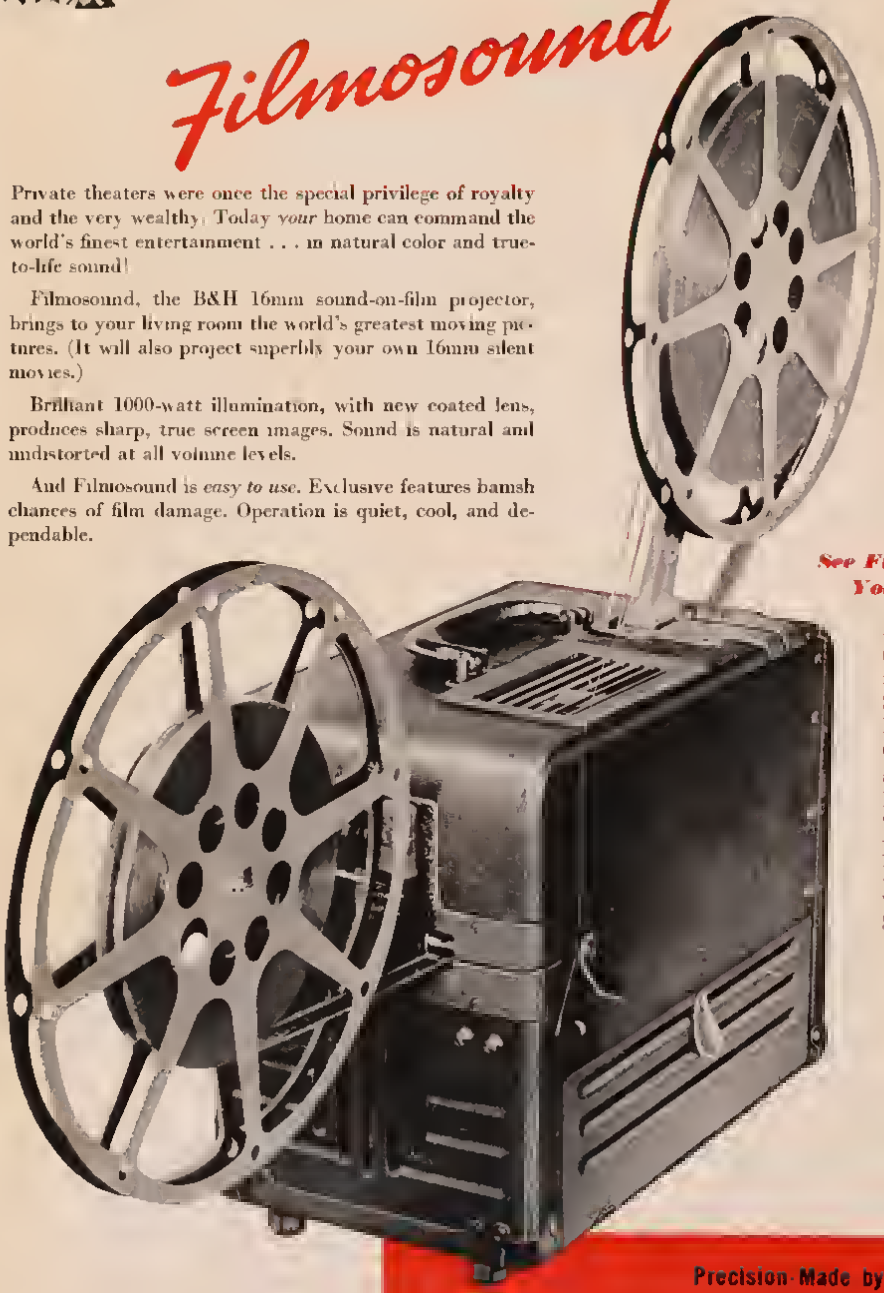

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